REMARKS

Claims 1, 2, 5-11, and 14-19 are pending in this application and under consideration. Claims 1, 5, 10, 11, and 14 are amended herein. Claims 3 and 12 are cancelled herein without prejudice or disclaimer. Support for the amendments to the claims may be found in claims 3 and 12 as originally filed, and at page 7, lines 1-17 of the specification. Reconsideration is requested based on the foregoing amendment and the following remarks.

Response to Arguments:

The Applicants appreciate the consideration given to their arguments, and the statement with respect to claim 19 at page 3 of the final Office Action. Independent claims 1 and 10 have consequently been amended in the manner of allowable claim 19. Further reconsideration is thus requested.

Claim Rejections - 35 U.S.C. § 102:

Claims 1, 2, 5, 6, 9-11, 14, 15, and 18 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,839,109 to Iwamida et al. (hereinafter "Iwamida"). The rejection is traversed to the extent it would apply to the claims as amended. Reconsideration is earnestly solicited.

In the claimed invention, a display, for example, may be controlled based on a sound element that is not matched with the characteristics of the voice among the characteristics of sound, such as ambient or background noise. The fifth clause of claim 1, in particular, recites:

> Specifying, as a characteristic of the ambient sound, a sound element that is not matched with the power spectrum of the voice among the power spectrum of the sound.

Iwamida neither teaches, discloses, nor suggests "specifying, as a characteristic of the ambient sound, a sound element that is not matched with the power spectrum of the voice among the power spectrum of the sound," as recited in claim 1. Iwamida, rather, is extracting features for recognition from an *input* sound signal, comparing the extracted features of the input sound signal with feature patterns stored in a standard feature pattern storage, selecting a standard sound signal corresponding to the input sound signal, and displaying display information corresponding to the standard sound signal. In particular, as described at column 2, lines 22-36:

> The speech recognition apparatus of the present invention comprises, as in a conventional speech recognition apparatus, sound input means for inputting a sound signal; feature extracting means for extracting features for recognition from

> the sound signal; standard feature pattern storing means for storing feature patterns of standard sound signals; comparing means for comparing the features of the input sound signal with the feature patterns stored in the standard feature pattern storing means, and for selecting a standard sound signal corresponding to the input sound signal; display pattern storing means for storing display information corresponding to the standard sound signals; and display means for displaying the display information corresponding to the standard sound signal selected by the comparing means.

Since Iwamida is extracting features for recognition from an input sound signal, Iwamida is not "specifying, as a characteristic of the ambient sound, a sound element that is not matched with the power spectrum of the voice among the power spectrum of the sound," as recited in claim 1.

Iwamida, moreover, compares the time series (input pattern) of frequency feature parameters for an *input* sound signal with the standard patterns. In particular, as described at column 3, lines 62-66:

> The numeral 41 is a comparator which, using a technique such as DP matching, compares the time series (input pattern) of frequency feature parameters for an input sound signal with the standard patterns, and selects a standard pattern that provides the closest match with the input pattern.

Since Iwamida compares the time series (input pattern) of frequency feature parameters for an input sound signal with the standard patterns, Iwamida is not "specifying, as a characteristic of the ambient sound, a sound element that is not matched with the power spectrum of the voice among the power spectrum of the sound," as recited in claim 1.

Iwamida, finally, stores nonspeech sounds such as a fire engine's siren sound, a baby's crying, etc., as standard patterns, rather than ambient sound. In particular, as described at column 4, lines 17-21:

> In the present embodiment, several tens of spoken messages necessary in daily life, such as "Good Morning," "Meal is ready," etc., and several kinds of nonspeech sounds, such as a fire engine's siren sound, a baby's crying, etc., are stored as standard patterns.

Since Iwamida stores nonspeech sounds such as a fire engine's siren sound, a baby's crying, etc., as standard patterns, Iwamida is not "specifying, as a characteristic of the ambient sound, a sound element that is not matched with the power spectrum of the voice among the power spectrum of the sound," as recited in claim 1.

The last clause of claim 1 recites:

> Wherein the predetermined effect is displayed while the voice sound is output.

Iwamida neither teaches, discloses, nor suggests "wherein the predetermined effect is displayed while the voice sound is output" as recited in claim 1. Iwamida, for example, may be seen to have made no provision for audio output in Fig. 1 or Fig. 2 at all, and thus cannot display a predetermined effect "while the voice sound is output," as recited in claim 1.

Iwamida, rather, displays the result of the recognition as characters for viewing by a hearing-impaired person, for whom the voice sound would be superfluous. In particular, as described at column 1, lines 48-56:

> For communication with hearing-impaired people, sign language or writing is used. One potential use of the speech recognition device is to assist the hearing impaired in carrying out conversation with people having normal speech ability. In this case, the person having the normal speech ability speaks as usual, and his or her voice is recognized by means of the speech recognition device which displays the result of the recognition as characters for viewing by the hearing-impaired person.

Since Iwamida displays the result of the recognition as characters for viewing by a hearing-impaired person, Iwamida cannot display a predetermined effect "while the voice sound is output," as recited in claim 1.

Iwamida, moreover, is applicable to a speech recognition apparatus for use in situations where generating sounds is not *desirable*. In particular, as described at column 1, lines 57-63:

> The present invention is particularly suitable for a speech recognition apparatus used for such a purpose, but it is not limited to this particular purpose; for example, the invention is also applicable to a speech recognition apparatus for use in situations where there is a need to obtain voice information from some other place but generating sounds is not desirable, such as during a conference.

Since Iwamida is applicable to a speech recognition apparatus for use in situations where there is a need to obtain voice information from some other place but generating sounds is not desirable, Iwamida cannot display a predetermined effect "while the voice sound is output," as recited in claim 1.

Even when the audio is output, it is not audio of the voice sound, but rather a speech sound *synthesized* from the result of the recognition so that the speaker can verify it. In particular, as described at column 1, lines 33-38:

> The result of the recognition of a speech signal may be output directly by assuming that the recognition has been done correctly, but to ensure the correctness of the recognition, it is standard practice to output a speech sound synthesized from the result of the recognition so that the speaker can verify it.

Since Iwamida outputs a speech sound synthesized from the result of the recognition so that the speaker can verify it, Iwamida cannot display a predetermined effect "while the voice sound is output," as recited in claim 1.

Iwamida, finally, produces only a *display* corresponding to the closest matching standard pattern on the display device 62 in accordance with the result of the comparison fed from the comparator 41. In particular, as described at column 4, lines 47-58:

> The display controller 61 produces a display corresponding to the closest matching standard pattern on the display device 62 in accordance with the result of the comparison fed from the comparator 41. When the standard pattern to be displayed represents a speech sound, the display controller 61 reads the codes of the character string to be displayed and the pattern of each character from the character ROM 53, assembles them, and outputs the resulting video signal to the display device 62. Alternatively, the character ROM 53 may be constructed to contain the patterns of the character strings corresponding to the standard patterns; in such a case, the display controller 61 can be simplified in construction.

Since Iwamida produces only a display corresponding to the closest matching standard pattern on the display device 62, Iwamida cannot display a predetermined effect "while the voice sound is output," as recited in claim 1. Claim 1 is submitted to be allowable. Withdrawal of the rejection of claim 1 is earnestly solicited.

Claims 2, 3, 5, 6, and 9 depend from claim 1 and add further distinguishing elements. Claims 2, 3, 5, 6, and 9 are thus also submitted to be allowable. Withdrawal of the rejection of claims 2, 3, 5, 6, and 9 is also earnestly solicited.

Claims 10, 11, 12, 14, 15, and 18:

Claim 10 has been amended to recite a "storage medium readable by a computer, storing a program of instructions executable by the computer to perform" the method of claim 19, which is indicated to be allowable in section 7, at page 7 of the final Office Action. Claim 10 is thus submitted to be allowable as well, for at least those reasons given in section 7, at page 7 of the final Office Action. Withdrawal of the rejection of claim 10 is earnestly solicited.

Claims 11, 12, 14, 15, and 18 depend from claim 10 and add further distinguishing elements. Claims 11, 12, 14, 15, and 18 are thus also submitted to be allowable. Withdrawal of the rejection of claims 11, 12, 14, 15, and 18 is also earnestly solicited.

Claim Rejections - 35 U.S.C. § 103:

Claims 7, 8, 16, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwamida in view of U.S. Patent No. 6,823,312 to Mittal et al. (hereinafter "Mittal"). The rejection is traversed to the extent it would apply to the claims as amended. Reconsideration is earnestly solicited.

Claims 7 and 8 depend from claim 1 and add further distinguishing elements. Iwamida neither teaches, discloses, nor suggests "specifying, as a characteristic of an ambient sound, a sound element that is not matched with the characteristic of the voice among the characteristic of the sound," or "wherein the predetermined effect is displayed while the voice sound is output," as discussed above with respect to the rejection of claim 1.

Mittal does not either, and thus cannot make up for the deficiencies of Iwamida with respect to either of claims 7 or 8. Mittal, rather, displays the speech in text or as graphics on a display panel on the phone device *instead* of an audio heard through the phone speaker. In particular, as described at column 2, lines 54-57:

> The second object of this invention is to display the speech in text or as graphics on a display panel on the phone device instead of being an audio heard through the phone speaker.

Since Mittal displays the speech in text or as graphics on a display panel on the phone device instead of an audio heard through the phone speaker, Mittal cannot display a predetermined effect "while the voice sound is output," either, and thus cannot make up for the deficiencies of Iwamida with respect to claim 7 or claim 8.

Mittal, moreover, extracts *words* from the audio signal, not ambient sounds. In particular, as described at column 8, lines 5, 6, and 7:

> The Data Processor (2) receives the audio signal from the input interface (1) and extracts words including keywords from the audio signal and/or modifies the audio signal.

Since Mittal extracts words from the audio signal, not ambient sounds, Mittal cannot display a predetermined effect "while the voice sound is output," either, and thus cannot make up for the deficiencies of Iwamida with respect to claim 7 or claim 8. Thus, even if Iwamida and Mittal were combined, the claimed invention would not result. Claims 7 and 8 are thus also submitted to be allowable. Withdrawal of the rejection of claims 7 and 8 is earnestly solicited.

Claims 16 and 17:

Claims 16 and 17 depend from claim 10 and add further distinguishing elements. Claim 10 has been amended to recite a "storage medium readable by a computer, storing a program of instructions executable by the computer to perform" the method of claim 19, which is indicated to be allowable in section 7, at page 7 of the final Office Action. Claims 16 and 17 are thus also submitted to be allowable. Withdrawal of the rejection of claims 16 and 17 is earnestly solicited.

Allowable Subject Matter:

The Applicants acknowledge with appreciation the allowance of claim 19.

Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all of claims 1, 2, 5-11, and 14-19 are allowable over the cited references. Allowance of all claims 1, 2, 5-11, and 14-19 and of this entire application is therefore respectfully requested.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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